

STAFF REPORT

A. Issues:

The proposed amendments to the Public Facilities Manual (PFM) clarify the pavement design requirements for pipestem driveways, including California Bearing Ratio (CBR) tests. In addition, the proposed amendments clarify that the approval of the Director must occur prior to construction for alternate equivalent pavement sections and special designs. The proposed amendments also revise bituminous concrete types to current Virginia Department of Transportation standards and clarify where density testing is required on the subgrade of streets.

B. Recommended Action:

Staff recommends that the Board of Supervisors adopt the proposed amendments.

C. Timing:

Board of Supervisors Authorization to Advertise – January 9, 2006

Planning Commission Public Hearing – February 1, 2006

Board of Supervisors Public Hearing – February 27, 2006

Effective Date – February 28, 2006

D. Source:

Department of Public Works and Environmental Services

E. Coordination:

The proposed amendments have been prepared by the Department of Public Works and Environmental Services and coordinated with the Department of Transportation (DOT), and the Office of the County Attorney. In addition, the proposed amendments were recommended for approval by the Engineering Standards Review Committee.

F. Background:

Currently, the pavement design requirements for pipestem driveways are located in two different sections of the PFM. In addition, the pavement design plates for pipestem driveways do not include a reference to these design

requirement sections. Designers may overlook some of the requirements since they are in various sections. In order to clarify the pavement and geometric design requirements for pipestem driveways, the proposed amendments reference the requirements in one section, which is titled "Pipestem Driveways". The proposed amendments also reference this section on Plates 23-7 and 24-7, which are typical cross-sections of the pavement for pipestem driveways.

Staff has had alternative pavement designs and special designs submitted for approval by the Director after the pavement has been constructed. It would be difficult and expensive to address any concerns staff may have regarding the pavement design, if the pavement has already been constructed. The proposed amendments clarify that the approval of the Director is required prior to construction.

The PFM plates associated with these amendments show outdated VDOT bituminous concrete designations. The proposed amendments update these references, including the thickness of the top course. In addition, the proposed amendments clarify where density testing is required on the subgrade of streets.

G. Summary of Proposed Amendments:

The proposed amendments revise Table 4.1 to reference private driveways and pipestem driveways regarding density testing, which is a measure of soil compaction.

The proposed amendments revise Section 7-0501.2 and Plate 6-7 to require approval of the Director prior to construction regarding alternative pavement designs or special designs.

The proposed amendments remove the reference to pipestem driveways in the title of Section 7-0502.5 and revise the title of Section 7-0503 to Private Driveway Entrances and Pipestem Driveway Standards. The geometric and pavement design requirements are then addressed for private driveway entrances and pipestem driveways in Sections 7-503.1 and 7-503.2, respectively.

The proposed amendments update bituminous concrete types to current VDOT specifications on the plates associated with this amendment. In addition, the proposed amendment revises Table 4.1 of the PFM to indicate where density testing is required on the subgrade of streets.

H. Enclosed Documents:

Attachment A: Proposed amendments to Chapters 4 and 7 of the PFM